



Dart Aerospace Ltd.
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D212-664-201TRN

Job Sheet 199409



Part No: D212-664-201TRN

Job Qty: 1 pcs

Part Name: Crosstube Turning Detail



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 8/22/19

Job Tracking No:

Created By: Marie Lajeunesse

Due Date: 9/4/19

Description:

Type: Stock

Note: D212-664-241 REV E IPP Rev:A 08-03-06 new issue DD verified by:ec IPP Rev B 08.04.02 Removed polish EC verified DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Lead Time	Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier			
100	Mori Seiki TL-40 - 1	1 pcs		9/4/19	1.00	1.33	Mori Seiki TL-40 - 1			DAS 66 2019/09/13 9-89
110	QC 2	1 pcs		9/4/19	0.00	0.00	QC 2 - 1			
							QC 2 - 12			
							QC 2 - 14			
							QC 2 - 17			
							QC 2 - 19			
							QC 2 - 2			
							QC 2 - 20			
							QC 2 - 22			
							QC 2 - 23			
							QC 2 - 25			
							QC 2 - 32			
							QC 2 - 33			
							QC 2 - 35			
							QC 2 - 39			
							QC 2 - 4			
							QC 2 - 40			
							QC 2 - 44			
							QC 2 - 45			
							QC 2 - 48			
							QC 2 - 49			
							QC 2 - 50			
							QC 2 - 51			
							QC 2 - 52			
							QC 2 - 57			
							QC 2 - 62			
							QC 2 - 63			
							QC 2 - 8			
							QC 2 - 66			DAS 66 2019/09/13 9-89
							QC 2 - 64			

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					QC 2 - 65	
					QC 2 - 5	
					QC 2 - 71	
					QC 2 - 73	
					QC 2 - 69	
120	Mori Seiki TL-40 - 1 - B4B	1 pcs	9/4/19	1.00 1.33	Mori Seiki TL-40 - 1 - B4B	DAS 662019/09/23 9-89
130	QC 2	1 pcs	9/4/19	0.00 0.00	QC 2 - 1	
					QC 2 - 12	
					QC 2 - 14	
					QC 2 - 17	
					QC 2 - 19	
					QC 2 - 2	
					QC 2 - 20	
					QC 2 - 22	
					QC 2 - 23	
					QC 2 - 25	
					QC 2 - 32	
					QC 2 - 33	
					QC 2 - 35	
					QC 2 - 39	
					QC 2 - 4	
					QC 2 - 40	
					QC 2 - 44	
					QC 2 - 45	
					QC 2 - 48	
					QC 2 - 49	
					QC 2 - 50	
					QC 2 - 51	
					QC 2 - 52	
					QC 2 - 57	
					QC 2 - 62	
					QC 2 - 63	
					QC 2 - 8	
					QC 2 - 66	DAS 662019/09/23 9-89
					QC 2 - 64	
					QC 2 - 65	
					QC 2 - 5	
					QC 2 - 71	
					QC 2 - 73	
					QC 2 - 69	
140	QC 8	1 pcs	9/4/19	0.00 0.00	QC 8 - 12	
					QC 8 - 14	
					QC 8 - 17	
					QC 8 - 20	
					QC 8 - 25	
					QC 8 - 3	
					QC 8 - 32	
					QC 8 - 33	
					QC 8 - 35	
					QC 8 - 39	
					QC 8 - 4	
					QC 8 - 44	
					QC 8 - 45	
					QC 8 - 49	
					QC 8 - 58	
					QC 8 - 8	
					QC 8 - 9	
					QC 8 - 68	

					QC 8 - 67	
					QC 8 - 1 (A)	DAS
					QC 8 - 47	47 19-10-17
					QC 8 - 40	9-89
					QC 8 - 52	
					QC 8 - 23	
					QC 8 - 57	
145 Crosstubes - 2 - B4B	1 pcs	9/4/19	0.00 0.25		Crosstubes - 1 - B4B	
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
					Crosstubes - 4 - B4B	19-10-17
150 Handfinish - 1-1 Chemical-B4B	1 pcs	9/4/19	0.00 1.00		Handfinish - 1 - 1 - B4B	
					Handfinish - 1 - 2 - B4B	
					Handfinish - 1 - 3 - B4B	NOV 28 2019
					Handfinish - 1 - 4 - B4B	
					Handfinish - 1 - 5 - B4B	
					Handfinish - 1 - 6 - B4B	
					Handfinish - 1 - 7 - B4B	
					Handfinish - 1 - 8 - B4B	
					Handfinish - 1 - 9 - B4B	
					Handfinish - 1 - 10 - B4B	
					Handfinish - 1 - 11 - B4B	
					Handfinish - 1 - 12 - B4B	
					Handfinish - 1 - 13 - B4B	
					Handfinish - 1 - 14 - B4B	
					Handfinish - 1 - 15 - B4B	
					Handfinish - 1 - 16 - B4B	
					Handfinish - 1 - 17 - B4B	
					Handfinish - 1 - 18 - B4B	
					Handfinish - 1 - 19 - B4B	
					Handfinish - 1 - 20 - B4B	
					Handfinish - 1 - 21 - B4B	
					Handfinish - 1 - 22 - B4B	
160 QC 7	1 pcs	9/4/19	0.00 0.00		QC 7 - 10	
					QC 7 - 13	
					QC 7 - 14	
					QC 7 - 15	
					QC 7 - 17	
					QC 7 - 18	
					QC 7 - 19	
					QC 7 - 2	
					QC 7 - 28	
					QC 7 - 3	
					QC 7 - 30	
					QC 7 - 34	
					QC 7 - 36	
					QC 7 - 37	
					QC 7 - 41	
					QC 7 - 47	
					QC 7 - 48	
					QC 7 - 51	
					QC 7 - 58	
					QC 7 - 59	
					QC 7 - 60	
					QC 7 - 9	
					QC 7 - 68	
					QC 7 - 50	DAS
					QC 7 - 67	76
					QC 7 - 40	9-89

170 Packaging 3-1 - Stock - B4B	1 pcs	9/4/19	0.00 0.00	QC 7 - 24	
				QC 7 - 43	
				QC 7 - 61	
				QC 7 - 81	
				Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	11/29/2019
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
180 QC 21 - SA	1 pcs	9/4/19	0.00 0.00	QC 21 - SA - 21	DAS
				QC 21 - SA - 70	21
				QC 21 - SA - 53	NOV 29 2019

Part Op 100 - Mori Seiki TL-40 (Mori Seiki CNC Lathe Large) 1-Fill tube with sand & install plugs DT8534 on both ends as per Descriptions: Folio FA114 2-Turn first side as per Folio FA114
 110 - (QC2- Inspect parts off machine FAI/FAIB)
 120 - Mori Seiki TL-40 (Mori Seiki CNC Lathe Large) 1-Turn second side as per Folio FA114
 130 - (QC2- Inspect parts off machine FAI/FAIB)
 140 - (QC8- Inspect parts - second check)
 145 - (Crosstubes) GRIND ONLY TRANSITION LINES SMOOTH LONGITUDE WAY.
 150 - Crosstubes) 1- handfinish X-TUBE INSIDE AND OUT
 160 - (QC7-Inspect Chemical Conversion Coat)
 170 - (Identify as per dwg & Stock Location: _____) Identify and stock in kanban rack Location: _____
 180 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6006-129	Crosstube Material	1 pcs (1 ea)	100-Mori Seiki TL-40 - 1	F123967

8/22/2019

[Dart Hawkesbury] Job Sheet - Lajeunesse, Marie

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-Mori Seiki TL-40 - 1	D6006-129	1	45	0
Part Specifications				
Specifications could not be found.				



Container No: S213642



Part: D212--664--201TRN

Job No: 199409

Serial No/Batch: S213642

Revision: E

Inspector:

Exp Date:

Instructions:

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Date: 08/13/19

③

DART AEROSPACE LTD	Work Order:	199409
Description: Crosstube Assembly (205/212 High Aft)	Part Number:	D212-664-241
Inspection Dwg: D212-664-241 Rev: E		Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	0.200	+/-0.010	✓		CNC-08	
	R0.063	+/-0.010	✓		RG	
	2.990	+0.005/-0.000	✓		CNC-04	
	5.237	+/-0.030	✓		CNC-08	
	2.600	+0.005/-0.000	✓		CNC-04	
	2.686	+0.005/-0.000	✓			
	2.770	+0.005/-0.000	✓			
	2.854	+0.005/-0.000	✓			
	2.938	+0.005/-0.000	✓			
	3.021	+0.005/-0.000	✓		CNC-05	
	3.133	+0.005/-0.000	✓			
	3.179	+0.005/-0.000	✓			
SIDE B	0.200	+/-0.010	✓		CNC-08	
	R0.063	+/-0.010	✓		RG	
	2.990	+0.005/-0.000	✓		CNC-04	
	5.237	+/-0.030	✓		CNC-08	
	2.600	+0.005/-0.000	✓		CNC-04	
	2.686	+0.005/-0.000	✓			
	2.770	+0.005/-0.000	✓			
	2.854	+0.005/-0.000	✓			
	2.938	+0.005/-0.000	✓			
	3.021	+0.005/-0.000	✓		CNC-05	
	3.133	+0.005/-0.000	✓			
	3.179	+0.005/-0.000	✓			
	124.362	+/-0.020	✓		Tape	

Item	Qty	Part Number	Description
1	X	D212-864-241	CROSSTUBE ASSEMBLY (205/212 HIGH AFT)
2	X	D212-864-241B	CROSSTUBE ASSEMBLY (214 HIGH AFT)
3	1	D6008-128	CROSSTUBE
4	2	D2940-1	SUPPORT
5	4	D3585-063-530	RUBBER CUSHION
6	2	D5018-1	SUPPORT
7	4	MS21920-28	CLAMP (OR MS21920-30)
8	AR	PROSEAL 880 B-2	SEALANT, AMS-S-8802 CLASS B-2

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6008-128
- 2) FINISH: a) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
b) PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
c) MASK INSIDE OF CROSSTUBE AS SHOWN (ZN C6-2 / C6-3, HATCHED AREA)
d) PAINT OUTSIDE PER DART QSI 005 4.2
e) REMOVE MASKING AND APPLY MATTE CLEAR COAT
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D212-864-XXX" AND BATCH NUMBER ON INSIDE OF CLIFF USING VIBRATING STYLUS.
- 7) WEIGHT: D212-864-241-241B = 44.2 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 10) RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 11) BEND PROGRESSIVELY WITH A MINIMUM OF 5 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 7.2% (BASED ON O.D.) IN LOWER HALF OF R35.5 BEND AND 8% (BASED ON O.D.) ON REMAINING TUBE.
- 12) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 13) ASSEMBLY
INSTALL D2940-1 / D5018-1 SUPPORT: ABRASE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 880 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE ON TOP SIDE OF CROSSTUBE.
15) TORQUE CLAMPS 80 TO 100 IN.-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 880 SEALANT HAS CURED FOR 72 HOURS.

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WITHOUT NOTICE
WORK ORDER
198409 MJS

19-08-22

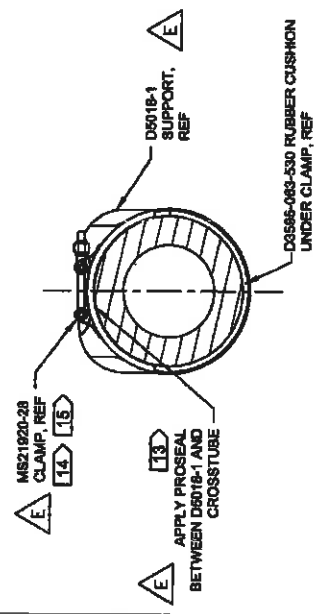
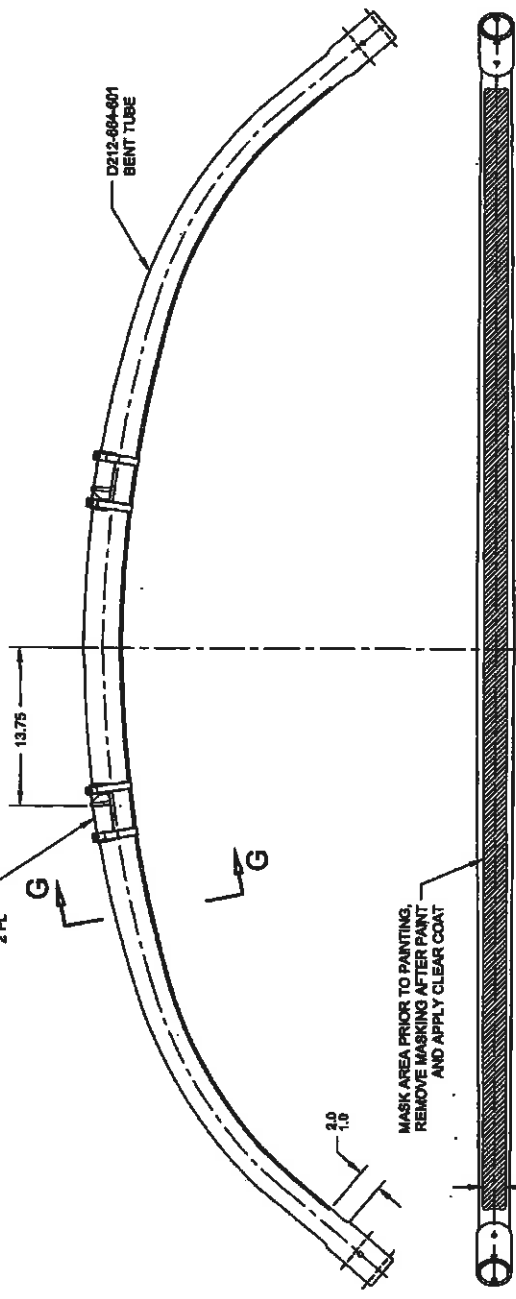
RELEASED
2014-05-26

E	D2018-1 WAS D2940-1 (241B). PROSEAL WAS MAGNABOND. NOTE 2: ADD INSPECTION WINDOW. NOTE 11: ALLOW 7.2% CRUSH. NOTE 16: ADD 72HR CURE AND RETORQUE FOR PROSEAL. ADD SHEET 3. CLAMPS REVERSED TO PREVENT CHAFING (ZN B7-2, B7-3). BEND HEIGHT TOL. NOW 0.25 WAS 0.13 (C1-4). RECORD DEC D-11-2	CP	14.04.01
D	REFORMAT/REVERSE GENERAL NOTES/PART LIST. REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. ADD 241B (ZN D4-2, B4-2). REMOVED REF & ADD TOLERANCES (ZN D4-3 & C4-3, C4-3 & A4-3). RELOCATED FLAG #6 PER PAR 08-048 (ZN A4-3). MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4	RF	09.09.30
C	REMOVE 1000 ABRASION STRIP. ADD MAGNABOND 638L CUSHION. REVERSE CLAMPS.	PH	07.03.08
B	ADD HOLES FOR COMPATIBILITY WITH BHTM	PH	06.02.04
A	END TUBES	CP	00.12.12
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MPG, APPR	DW	D212-864-241	REV. E
APPROVED			SHEET 1 OF 8
DE APPR			SCALE
DATE	14.04.01		CROSSTUBE ASSY (205/212 HI AFT) NTS
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DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

1 2 3 4 5 6 7 8

E 13 14 15
 D5018-1 SUPPORT
 MS21920-28 CLAMP, 2X
 D3596-083-530 RUBBER CUSHION, 2X
 2 PL



D212-664-241B
 ASSEMBLY DETAIL
 E

RELEASE
 2014-05-26
 MP

DESIGN	0	DART AEROSPACE LTD	REV. E
DRAWN	0	HAWKESBURY, ONTARIO, CANADA	
CHECKED	0		
MPG. APPR.	0	D212-664-241	SHEET 3 OF 8
APPROVED	0	TITLE	SCALE
DE APPR.	0	CROSSTUBE ASSY (205212 HI AFT)	NTS
DATE	14.04.01		

SECTION G-G
 SCALE 4X

1 2 3 4 5 6 7 8

